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DOI:
10.1093/mnras/stx1064

Monthly Notices
of the
ROYAL ASTRONOMICAL SOCIETY

MNRAS **469,** 2455–2456 (2017)
Advance Access publication 2017 May 3

doi:10.1093/mnras/stx1064

Erratum: Probing the assembly history and dynamical evolution of massive black hole binaries with pulsar timing arrays

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Key words: black hole physics – gravitational waves – methods: data analysis – pulsars: general.

The paper 'Probing the assembly history and dynamical evolution of massive black hole binaries with pulsar timing arrays' was originally published in 468(1), 404–417.

It has been brought to our attention that there is an inconsistency between the content of Fig. 5 of the original paper (Chen et al. 2017) and the related statement that the figure shows a simulation of a gravitational wave background generated by binaries with an eccentricity of 0.01. After a careful investigation, we realized that the original Fig. 5 was indeed produced using a simulation with binaries with an eccentricity of 0.1, consistent with the recovered value. We would like to apologize for any confusion that this figure has caused. We show below the correct figure produced with an $e_t = 0.01$ injection. The analysis correctly recovers the injected value and the peak around $e_t = 0.1$ (present in the original figure) disappears, as expected.

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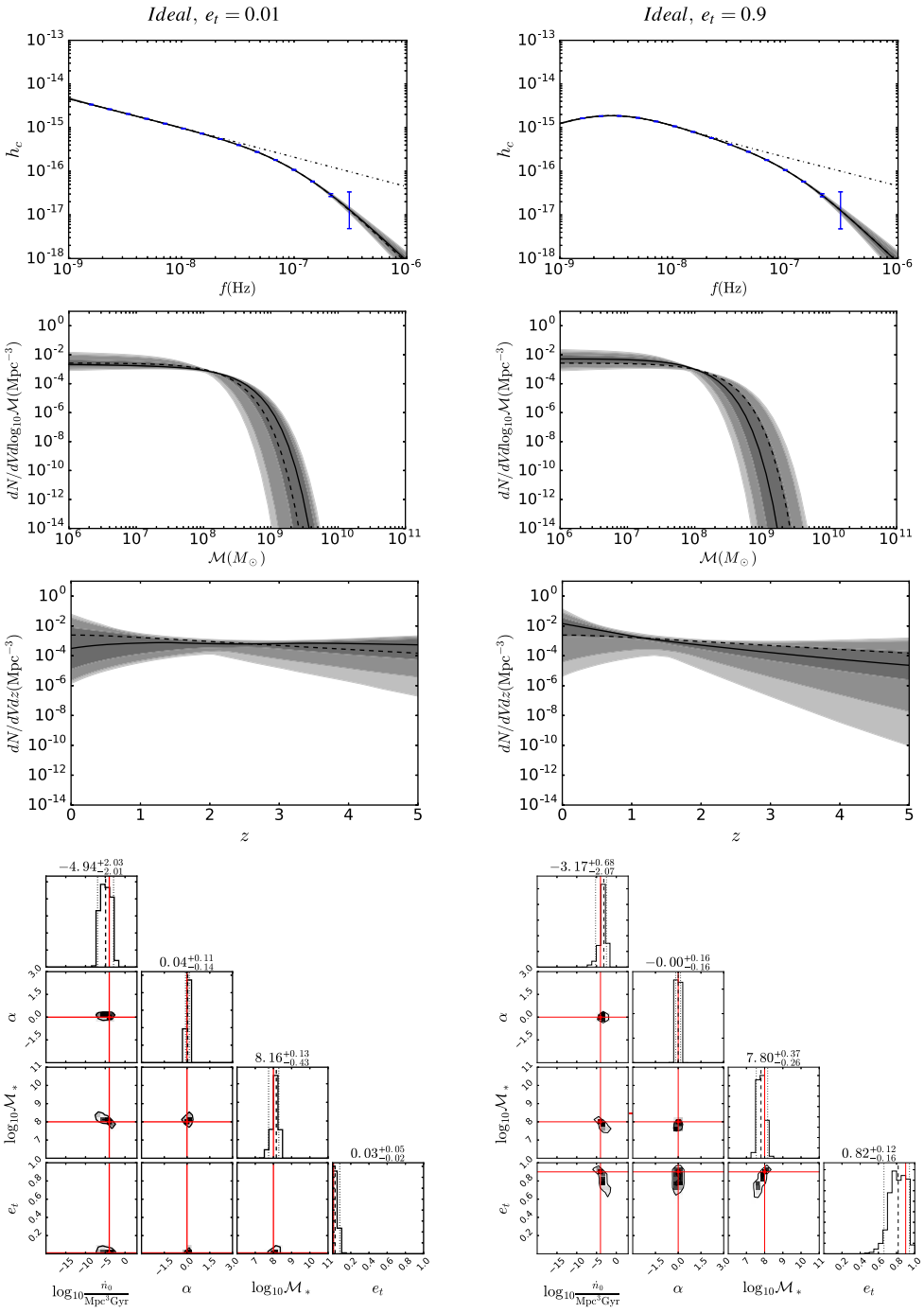

Figure 5. Implication of an ideal detection with 500 MSPs timed at sub-ns precision for 30 yr. The injected model has default parameters with $e_t = 0.01$ (left-hand column) and 0.9 (right-hand column). Panel sequence and style same as Fig. 3 (of the original paper).

ACKNOWLEDGEMENTS

We acknowledge the support of our colleagues in the European Pulsar Timing Array. AS is supported by a University Research Fellow of the Royal Society.

REFERENCE

Chen S., Middleton H., Sesana A., Del Pozzo W., Vecchio A., 2017, MNRAS, 468, 404

This paper has been typeset from a TEX/LATEX file prepared by the author.